

REMARKS/DISCUSSION OF ISSUES

By this Amendment, Applicant amends claims 1-7 and 11, and adds new claims 16-19.

Claims 1-19 are pending in the application.

Applicant thanks the Examiner for acknowledging the claim for priority and receipt of certified copies of all the priority documents, and for stating that the drawings are acceptable.

Claims are amended for non-statutory reasons, to replace European-style claim phraseology with American-style claim language. The claims are not narrowed in scope.

New claims 16-19 are added to at least partially restore the original range of features in claims 2, 5 and 6 that existed before they were amended herein for clarification. No new matter is added.

Reexamination and reconsideration are respectfully requested in view of the following Remarks.

35 U.S.C. § 101

The Office Action rejects claim 1 and 11 and 13 under 35 U.S.C. § 101.

Applicant respectfully traverses those rejections for at least the following reasons.

First, the Office Action states regarding claim 1 that "[t]he steps do not perform the requested action."

Applicant respectfully traverses this statement. Applicant does not know what is supposed to be meant by "requested action," but the steps recited in claim 1 absolutely do embed a secondary signal of a secondary channel in the bitstream of a primary signal of a primary channel. If the Examiner has any evidence to the contrary, he is respectfully requested to make such evidence of record. Otherwise, Applicant respectfully requests that the Examiner retract this statement.

Then, the Office Action states that "[c]laim 1 also recites a method step that needs no implementation on a computer."

Applicant agrees! So what?? What is the possible relevance of this statement to a rejection of claim 1 under 35 U.S.C. § 101? There is absolutely no requirement under any statute, rule, or court decision that a patent claim directed to a patentable method must "need implementation on a computer."

Next, the Office Action states that "claim 1 does not recite any structure, i.e., machine to carry out the functions of all of the recited steps. Therefore claim 1 recites non-statutory subject matter"

Applicant agrees that claim 1 does not recite any structure. Claim 1 is a method claim. Applicant respectfully submits that there is no requirement anywhere in United States patent law that a method claim must recite a "machine to carry out the functions of all of the recited steps." If the Examiner is aware of any patent law, rule, or dispositive court decision that has imposed any such requirement on an Applicant claiming a novel method, then the Examiner is respectfully requested to cite such law, rule, or case. Otherwise, Applicant respectfully requests that the Examiner retract this statement.

Finally, the Office Action states that "[c]laims 11 and 13 have limitations that are similar to those of claim 1, thus they are rejected with the same rationale applied against claim 1 above."

Applicant respectfully traverses this statement, and the further traverses the failure of the Office Action to independently examine each of Applicant's claims. In particular, while claim 1 is a method claim, claim 13 is an apparatus claim. How could the Examiner's statement that claim 1 "does not recite any structure" possibly apply to claim 13, which specifically recites detection means and decoding means?!? And what could it possibly mean to state that "the steps" of apparatus claim 13 "do not perform the requested action."

Applicant has paid all of the fees required for each and every one of the claims submitted here, and respectfully insist that under the rules of the U.S. Patent Office, Applicant is therefore entitled to a full, fair, and complete examination of each pending claim.

Accordingly, for at least these reasons, Applicant respectfully requests that

the Examiner withdraw all rejections under 35 U.S.C. § 101.

35 U.S.C. § 103

The Office Action rejects: claim 1-3, 8, 11 and 13 under 35 U.S.C. § 103 over Hagen et al. U.S. Patent 6,182,030 ("Hagen"); claims 4-5, 9 and 12 under 35 U.S.C. § 103 over Hagen in view of Chao et al. U.S. Patent 5,204,882 ("Chao"); and claims 6-7, 10, and 14-15 under 35 U.S.C. § 103 over Hagen in view of Van Wie U.S. Patent 6,240,185 ("Van Wie").

Applicant respectfully traverses all of these rejections for at least the following reasons.

Claim 1

Among other things, the method of claim 1 includes distorting the bitstream of a primary signal by a particular distortion representing a secondary signal.

Applicant respectfully submits that Hagen does not disclose such a feature.

The Office Action states that Hagen discloses in column 2, lines 6-11 and FIG. 1 a composite bit stream made out of two or more separate streams.

Besides this not being what is claimed in claim 1, Applicant also submit that this is not disclosed in column 2, lines 6-11 and FIG. 1 of Hagen!

The Office Action fairly admits that Hagen does not "clearly" mention the bitstream of the primary signal is distorted (indeed, Applicant respectfully submit that Hagen doesn't disclose or suggest such a thing – "clearly" or otherwise). However, the Office Action states that "[i]t would have been obvious to a person having ordinary skill in the art at the time the invention was made to **clearly point out how the bitstream of the signals** (sic) **is being distorted** since the ability to strip bits from an exiting bit stream while maintaining the ability to reconstruct the speech signal (albeit at a lower accuracy) is an especially useful type of bit rate flexibility" (emphasis added).

Applicant respectfully disagrees. The cited text in Hagen is merely discussing the benefit of providing bit rate flexibility in a digitized speech signal. It has absolutely nothing to do with distorting the bitstream of a primary signal by a

particular distortion representing a secondary signal, which is the feature of claim 1.

Also, Applicant respectfully submits that one could not “clearly point out” that which is not present in Hagen in the first place. Hagen does not disclose distorting the bitstream of a primary signal by a particular distortion representing a secondary signal, the Office Action does not cite anything in Hagen which discloses distorting the bitstream of a primary signal by a particular distortion representing a secondary signal, and the Office Action does not state that it would have been obvious to modify Hagen to distort the bitstream of a primary signal by a particular distortion representing a secondary signal, or provide any motivation for such a modification. Whether or not something would have been “clearly obvious to point out” (and here, it would not have been) is not the test for obviousness under 35 U.S.C. § 103. Therefore, the rejection under 35 U.S.C. § 103 is improper and must be withdrawn.

Furthermore, the Office Action states that the motivation for one to supposedly “clearly point out” the features that are completely undisclosed by Hagen would be “because high quality coding of acoustical signals at low bit rates is of pivotal importance to communications systems.”

Applicant respectfully submits that this is totally irrelevant to the only two issues here: (1) whether Hagen discloses distorting the bitstream of a primary signal by a particular distortion representing a secondary signal; and (2) whether it would have been obvious to one skilled in the art at the time the invention was made to modify Hagen to distort the bitstream of a primary signal by a particular distortion representing a secondary signal. In response to issue (1), Hagen does not disclose such a feature. In response to issue (2), such a modification of Hagen would not have been obvious, and the Office Action fails to provide any evidence at all to the contrary.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 1 is patentable over Hagen.

Claims 2-3

Claims 2-3 depend from claim 1 and are deemed patentable for at least the reasons set forth above with respect to claim 1, and for the following additional

reasons.

Among other things, in the methods of claims 2 and 3, distorting the bitstream of the primary signal comprises inserting local phase errors in the bitstream of the primary signal. Meanwhile, in the method of claim 3, the absolute value of the phase error is chosen such that it is smaller than the channel clock period of the primary channel.

Applicant respectfully submits that Hagen does not disclose or suggest such features.

The Office Action states that Hagen "provides" encoding of an adaptive equalization operator by means of a bit stream "which may be separable from the bit stream of the primary coding algorithm."

Of course, that is not what is recited in either claim 2 or claim 3. The Office Action make no mention whatsoever of: (1) inserting local phase errors in the bitstream; (2) absolute value of the phase error; (3) or the channel clock period of the primary channel.

It is facially clear that the Office Action has not supported any rejection of claims 2-3 under 35 U.S.C. § 103 over Hagen. Furthermore, Applicant respectfully submits that Hagen does not disclose any of these features.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claims 2-3 are patentable over Hagen.

Claims 4-5

Claims 4-5 depend from claim 1. Chao does not remedy the shortcomings of Hagen with respect to claim 1. Accordingly, claims 4-5 are deemed patentable for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Among other things, in the methods of claims 4 and 5, low frequency variations are introduced into the channel clock of the primary channel.

Applicant respectfully submits that no proper combination of Hagen and Chao would produce the claimed methods including this feature. Also, Applicant respectfully traverses the proposed combination of Hagen and Chao as totally

lacking any motivation whatsoever in the prior art.

Neither FIG. 5 of Hagen nor the text at col. 8, lines 56-65, discloses or remotely suggests introducing low frequency variations into the channel clock of the primary channel. Similarly, neither col. 3, lines 17-29, nor col. 5, lines 48-56, of Chao discloses or remotely suggests introducing low frequency variations into the channel clock of the primary channel. Furthermore, the cited text at col. 1, lines 10-12 of Hagen does not provide any motivation whatsoever for the proposed combination of references.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claims 4-5 are patentable over the prior art.

Claims 6-7

Claims 6-7 depend from claim 1. Van Wie does not remedy the shortcomings of Hagen with respect to claim 1. Accordingly, claims 6-7 are deemed patentable for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Hagen does not disclose the features specifically recited in claims 6-7. Applicant respectfully traverses the proposed combination of Hagen and Van Wie as totally lacking any proper motivation in the prior art.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claims 6-7 are patentable over the prior art.

Claim 8

Among other things, the apparatus of claim 8 includes distortion means for distorting the bitstream of the primary signal such that the secondary signal is represented by a predetermined distortion.

Applicant respectfully submits that Hagen does not disclose or suggest any apparatus including such distortion means. The Office Action does cite anything in Hagen that discloses or suggests any apparatus including such distortion means.

Accordingly, for at least these reasons, claim 8 is deemed patentable over Hagen.

Furthermore, the Office Action fails to substantively examine claim 8, instead

stating that it has limitations "similar to those of claim 1."

Applicant respectfully disagrees.

Claim 1 is a method claim; claim 8 is an apparatus claim. Claim 1 recites various steps in a method; claim 8 recites various components of an apparatus.

Applicant has paid all of the fees required for each and every one of the claims submitted here, and respectfully insist that under the rules of the U.S. Patent Office, Applicant is therefore entitled to a full, fair, and complete examination of each pending claim. The Examiner is respectfully requested to provide some citation to anything in Hagen disclosing or suggesting an apparatus that includes distortion means for distorting the bitstream of the primary signal such that the secondary signal is represented by a predetermined distortion, or else allow claim 8.

Claim 9

Claim 9 depends from depend from claim 8. Chao does not remedy the shortcomings of Hagen with respect to claim 8. Accordingly, claim 9 is deemed patentable for at least the reasons set forth above with respect to claim 8, and for the following additional reasons.

Hagen does not disclose the buffer or encoder specifically recited in claim 9. Fig. 3A of Hagen very clearly does not disclose the buffer or encoder specifically recited in claim 9. Furthermore, Applicant respectfully traverses the proposed combination of Hagen and Chao as totally lacking any proper motivation in the prior art.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 9 is patentable over the prior art.

Claim 10

Claim 10 is directed to an apparatus for recording a primary signal of a primary channel on a record carrier that includes the apparatus of claim 8.

Van Wie does not remedy the shortcomings of Hagen with respect to claim 8. Accordingly, claim 10 is deemed patentable for at least the reasons set forth above with respect to claim 8, and for the following additional reasons.

Hagen does not disclose an apparatus for recording a primary signal of a

primary channel on a record carrier. Applicant respectfully traverses the proposed combination of Hagen and Van Wie as totally lacking any proper motivation in the prior art.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 10 is patentable over the prior art.

Claim 11

Among other things, the method of claim 11 includes detecting the distortion of a bitstream of a primary signal, and decoding a secondary signal from the distortion.

Applicant respectfully submits that Hagen does not disclose or suggest any method including such features. The Office Action does cite anything in Hagen that discloses or suggests any method including such features.

Accordingly, for at least these reasons, claim 11 is deemed patentable over Hagen.

Furthermore, the Office Action fails to substantively examine claim 11, instead stating that it has limitations "similar to those of claim 1."

Applicant respectfully disagrees.

Claim 1 is directed to a **method of embedding** a secondary signal of a secondary channel in the bitstream of a primary signal of a primary channel. In clear contrast, claim 11 is directed to a **method of detecting** a secondary signal of a secondary channel embedded in the bitstream of a primary signal of a primary channel.

Applicant has paid all of the fees required for each and every one of the claims submitted here, and respectfully insist that under the rules of the U.S. Patent Office, Applicant is therefore entitled to a full, fair, and complete examination of each pending claim. The Examiner is respectfully requested to provide some citation to anything in Hagen disclosing or suggesting a method that detects the distortion of a bitstream of a primary signal, and decodes a secondary signal from the distortion, or else allow claim 11.

Claim 12

Claim 12 depends from claim 11. Chao does not remedy the shortcomings of Hagen with respect to claim 11. Accordingly, claim 12 is deemed patentable for at least the reasons set forth above with respect to claim 11, and for the following additional reasons.

Hagen does not disclose detecting distortion in a phase lock loop. The Office Action cites nothing in Chao that supposedly discloses detecting distortion in a phase lock loop. Furthermore, Applicant respectfully traverses the proposed combination of Hagen and Chao as totally lacking any proper motivation in the prior art.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 12 is patentable over the prior art.

Furthermore, the Office Action fails to substantively examine claim 12, instead stating that it has limitations "similar to those of claim 11."

Applicant respectfully disagrees.

Claim 12 includes detecting the distortion in a phase locked loop circuit. Claim 11 contains no such limitation.

Applicant has paid all of the fees required for each and every one of the claims submitted here, and respectfully insist that under the rules of the U.S. Patent Office, Applicant is therefore entitled to a full, fair, and complete examination of each pending claim. The Examiner is respectfully requested to provide some citation to anything in Hagen and/or Chao disclosing or suggesting detecting the distortion in a phase locked loop circuit, or else allow claim 12.

Claim 13

Among other things, the apparatus of claim 13 includes detection means for detecting the distortion of the bitstream, and decoding means for decoding the secondary signal from the distortion.

Applicant respectfully submits that Hagen does not disclose or suggest any apparatus including such detection means or decoding means. The Office Action does cite anything in Hagen that discloses or suggests any apparatus including such detection means or decoding means.

Accordingly, for at least these reasons, claim 13 is deemed patentable over Hagen.

Furthermore, the Office Action fails to substantively examine claim 13, instead stating that it has limitations "similar to those of claim 1."

Applicant respectfully disagrees.

Claim 1 is a method claim; claim 13 is an apparatus claim. Claim 1 recites various steps in a method; claim 13 recites various components of an apparatus. Claim 1 is directed to a **method of embedding** a secondary signal of a secondary channel in the bitstream of a primary signal of a primary channel; claim 13 is directed to an **apparatus for detecting** a secondary signal of a secondary channel embedded in the bitstream of a primary signal of a primary channel.

Applicant has paid all of the fees required for each and every one of the claims submitted here, and respectfully insist that under the rules of the U.S. Patent Office, Applicant is therefore entitled to a full, fair, and complete examination of each pending claim. The Examiner is respectfully requested to provide some citation to anything in Hagen disclosing or suggesting an apparatus that includes distortion means for distorting the bitstream of the primary signal such that the secondary signal is represented by a predetermined distortion, or else allow claim 13

Claim 14

Claim 14 is directed to apparatus for replaying data stored on a record carrier that includes the apparatus of claim 13.

Van Wie does not remedy the shortcomings of Hagen with respect to claim 13. Accordingly, claim 14 is deemed patentable for at least the reasons set forth above with respect to claim 13, and for the following additional reasons.

Hagen does not disclose an apparatus for replaying data stored on a record carrier. Applicant respectfully traverses the proposed combination of Hagen and Van Wie as totally lacking any proper motivation in the prior art.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 14 is patentable over the prior art.

Claim 15

Among other things, in the data carrier of claim 15, the bitstream of the primary signal is distorted before being stored on the data carrier such that a secondary signal is represented by a predetermined distortion.

Applicant respectfully submits that Hagen does not disclose or suggest a data carrier. Also, Hagen does not disclose or suggest distorting the bitstream of a primary signal before storing the primary signal on the data carrier such that a secondary signal is represented by a predetermined distortion. The Office Action does cite anything in Van Wie that discloses or suggests distorting the bitstream of a primary signal before storing the primary signal on the data carrier such that a secondary signal is represented by a predetermined distortion. Therefore, no combination of Hagen and Van Wie could produce the data carrier of claim 15. Applicant respectfully traverses the proposed combination of Hagen and Van Wie as totally lacking any proper motivation in the prior art.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 15 is patentable over the prior art.

NEW CLAIMS 16-19

New claims 16-19 depend variously from claims 2, 5 and 6, and are deemed patentable for at least the reasons set forth above with respect to claims 2, 5 and 6, respectively, and because the prior art fails to disclose the combination of features recited in claims 16-19.

CONCLUSION

In view of the foregoing explanations, Applicant respectfully requests that the Examiner reconsider and reexamine the present application, allow claims 1-19 and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.


If necessary, the Commissioner is hereby authorized in this, concurrent, and

future replies to charge payment or credit any overpayment (except for the issue fee) to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

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